SONOMA COUNTY WATER AGENCY
ENERGY POLICY

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SONOMA COUNTY WATER AGENCY
ENERGY POLICY

Introduction

The Sonoma County Water Agency provides wholesale delivery of potable water to many cities and water districts, maintenance of flood control channels and reservoirs and wastewater treatment for outlying areas of Sonoma County. The Agency is the single largest user of electricity in Sonoma County, primarily due to its responsibility to pump potable water from the Russian River in western Sonoma County to its municipal water customers in southern Sonoma and northern Marin counties. Several Agency-managed wastewater facilities also consume large amounts of electricity in pumping and/or treating wastewater at Sonoma, Guerneville, Airport-Larkfield-Wikiup, Occidental, Geyserville, Sea Ranch, Penngrove, and South Park.

In the mid- and late-1990s, an attempt to deregulate the California electric utilities and the ensuing energy crisis resulted in significant increases in the cost of electricity, as well as an outpouring of public resources available to local government agencies to help reduce energy use through energy efficiency measures, distributed generation, and conservation.

The goal of the Agency's overall energy program is to reduce energy usage, reduce energy related costs and reduce impacts on the environment. The Agency desires to implement an Energy Policy and Strategy to:

- Provide the Agency's Board of Directors an opportunity to give input on the Agency's energy future.
- Provide staff direction to pursue certain energy related goals and to develop action plans to reach those goals.
- Assist staff in coordinating the use of public resources available for implementing the Agency's energy policy.

Also included as appendices to this document are ***Appendix A – Future Energy Related Activities***, which lists projects and programs the Agency may wish to pursue in the future and ***Appendix B – Strategic Plan Element – Energy***, which provides specific language on energy to be incorporated into the Agency's Strategic Plan.

Energy Policy

The Agency has adopted the following policies to guide staff in the purchase of energy efficient equipment, design of new facilities and operation and maintenance of existing facilities and equipment. These policies are designed to encourage staff to continually evaluate the impacts of key decisions on the Agency's energy resources and make decisions that will have positive effects on energy conservation efforts, energy efficiency, cost and the environment.

Purchasing Guidelines

Upon initiating a purchase for a new fleet vehicle, office or other equipment, consideration will be given to the relative energy efficiency and emissions levels of the available alternatives. Effort should be made to ensure that new equipment is more efficient and/or produces lower emissions than the equipment being replaced, if applicable. When a more efficient or low-emissions alternative costs considerably more than a conventional item, a cost analysis will be performed to determine if the higher-cost alternative would cost less over the useful life of the asset due to lower energy or maintenance cost.

When Agency staff becomes aware that significant improvements in energy efficiency or emissions can be achieved by replacing older or worn equipment, staff will be pro-active in analyzing the potential benefits of replacing the old or worn equipment.

Design and Construction Guidelines

Upon initiating design of new Agency capital facilities, consideration will be given to the latest energy efficient design standards and equipment specifications available. Staff will consult available public resources for energy efficient facilities and capital equipment standards and will evaluate new technologies and techniques against other methods of achieving the same result. Effort should be made to ensure that new facilities and equipment is more efficient and/or produces lower emissions than the equipment being replaced, if applicable. When a more efficient or low-emissions alternative costs considerably more than a conventional item, a cost analysis will be performed to determine if the higher-cost alternative would cost less over the useful life of the asset due to lower energy or maintenance cost.

Operations and Maintenance Guidelines

Staff will remain informed of energy conservation measures they can take to reduce energy use. Agency staff will not waste energy by using or operating equipment or facilities in a manner inconsistent with energy conservation practices.

Facilities and equipment will be regularly maintained in a manner that leads to optimal performance, including energy efficiency.

APPENDIX A - Future Energy Related Activities

Future projects, programs and initiatives that will help the Agency achieve its strategic energy goals are described below and will be integrated as strategic actions with the Agency's Strategic Plan.

Use of Warm Springs Dam hydroelectric power at Agency facilities

The Agency generates energy at its Warm Springs Dam Hydroelectric generating plant. This energy is currently sold to PG&E for 5.37 cents per kilowatt hour under a Standard Offer 4 agreement which runs through 2008. Revenues received from PG&E are deposited to the Agency's Water Transmission fund to reduce the net cost of operating the water transmission system.

Agency staff wish to pursue one of several alternatives that would allow use of this energy at Agency water transmission facilities, thereby offsetting the cost of providing water to the Agency's water contractors. If successful in arranging an interconnection agreement with PG&E for transmission of this energy to Agency facilities, the water transmission system would realize a benefit equal to the difference between the current cost of energy and 5.37 cents/kWh (currently around 2.5 cents or approximately $1.4 million annually.

Solar power projects at Airport and Sonoma Valley treatment plants

On June 14, 2005, the Agency awarded a design-build contract to Powerlight Corporation to install solar panels on the Agency's administrative offices. When completed, the panels will provide nearly all of the energy used at the building. Approximately half of the cost of the project, or $1.6 million, is to be funded through rebates received from PG&E's Self-generation Incentives Program.

The Agency has submitted applications for similar rebates for solar power projects at two of the wastewater treatment plants it manages: Airport-Larkfield-Wikiup Sanitation Zone and Sonoma Valley County Sanitation District. Both projects are on a waiting list and are nearing eligibility for rebate funding.

Establish CO2 reduction target and action plan to reach target

Agency staff has participated in the roll-out of the Cities for Climate Protection program in Sonoma County, which is administered by the International Council for Local Environmental Initiatives (ICLEI). The County, as well as most of the Cities that make up the agency's water customers, has recently committed to fully participating in the program. The program includes: 1) conducting a greenhouse gas (GHG) emissions inventory and forecast to determine the source and quantity of GHG emissions that result from the Agency's operations, 2) establishing a GHG emissions reduction target for Agency operations, 3) developing an action plan with both existing and future actions which, when implemented, will meet the local GHG reduction target, and 4) implementing the action plan, and 5) monitoring results to confirm progress toward the target.

Due to limited staff availability to perform a greenhouse gas emissions inventory (step one) and the expertise of the Climate Protection Campaign (CPC) staff in this area, the Agency hopes to engage CPC to perform this service. CPC staff would also assist in establishing an emissions reduction target (step two) and in identifying specific actions the Agency can take to meet the target (step three). Finally, CPC would assist Agency staff in setting up an implementation plan (step four) and a monitoring plan to confirm progress (step five).

Agency staff would return to the Board upon completion of the greenhouse gas inventory to receive Board input on an appropriate GHG reduction target.

Research use of bio-diesel fuel for fleet vehicles and backup generators

Bio-diesel fuel is created from various agricultural and food products and represents a cleaner-burning alternative to fossil fuels. Agency staff believes an investigation into the costs and benefits of using this fuel for fleet vehicles and emergency backup generators may ultimately lead to better air quality and less waste being sent directly to landfills.

Encourage approval of on-site energy generation to prevent blackouts

During electricity shortages, which are predicted to continue as the State's overall energy demand increases, the Agency is subjected to the risk of energy service interruptions (blackouts). Current air quality permits restrict the use of backup generators until a blackout occurs, resulting in hours of downtime while backup generators are turned on and pumps restarted. During peak water use times, which typically coincide with blackouts, this type of service interruption could prevent the Agency from meeting its customers' water demands.

Agency staff desire to work with the Northern Sonoma County Air Quality Management District to allow the Agency to curtail energy use during peak energy demand periods by running backup generators. The use of cleaner-burning bio-diesel fuel in backup generators may enhance the possibility of such changes to air quality permits.

Pursue other special projects consistent with strategic energy objective

As new and innovative ways are found to achieve the Agency's energy strategy, staff will pursue preliminary investigations necessary to evaluate their appropriateness for implementation and bring them to the Board of Directors for further direction.

APPENDIX B - Strategic Plan Element - Energy

Since energy use is necessary for the performance of all Agency business, a strategic objective will be added to the Agency's Strategic Plan under the key functional area of Business Practices, as shown below:

Strategic Objective: Manage energy resources to reduce energy use, reduce energy related costs and reduce energy-related impacts on the environment

Strategic Actions:

Take a leadership role in energy resource management

- *Build partnerships that capitalize on economies of scale, utilize joint powers or build support for initiatives.*
- *Pursue projects that employ innovative approaches to meeting strategic energy goals.*
- *Publicize and provide access to innovative projects to encourage adoption by others.*

Organize, empower and equip staff with resources to implement strategic energy plan

- *Clearly communicate energy management as a priority to staff*
- *Prioritize staff and capital resources for energy management activities*
- *Implement an Energy Policy requiring staff to make energy management measures a regular part of administering, operating and maintaining Agency facilities and equipment.*

Pursue projects and programs that will lead to long-term energy management benefits

- *Obtain self-wheeling arrangement for utilization of Warm Springs Dam Hydroelectric power at Agency facilities*
- *Continue to pursue additional solar power projects at Airport and Sonoma Valley wastewater treatment plants*
- *Establish CO2 reduction target and action plan to reach target*
- *Research using bio-diesel fuel for fleet vehicles and backup generators*
- *Work with Northern Sonoma County Air Quality Management District to allow on-site energy generation to prevent blackouts*
- *Pursue other special projects to achieve strategic energy goals*